

Electronic Laboratory Reporting (ELR) Ask On Order Question

You may be aware that new federal laboratory reporting guidelines for COVID-19 were released on June 4th, 2020: <https://www.hhs.gov/sites/default/files/covid-19-laboratory-data-reporting-guidance.pdf>.

Important Notes:

- IDPH needs to make changes to multiple systems. **These changes should be in place by September 21, 2020, to accommodate surveillance partner testing.** Updates to the smartLab will be last in the set of IDPH updates so should new AOE information need to come through production channels, IDPH will be able to consume these additional data elements without disrupting production reporting.
- The data element number in this document reflects the numbering found in the original June 4th letter found at the link above.
- The data elements in this guidance reflect the data elements called for in the CARES Act laboratory reporting guidelines, but where there may be a discrepancy in the *values* listed for a data element because these are the values IDPH collects; reporting from IDPH to CDC will reflect the values specified in the federal guidelines.
- If you are already sending HL7 messages, it is likely that your message contains most of the Required Data Elements in those items numbered 1-18 and the additional patient demographics in the table below.
- We believe most of the changes are found in the Ask On Order Entry (AOE) questions.
- If your facility collects specimen and sends it to an external laboratory for testing, please make sure you provide AOE information in the test request. If the interface the external lab provides for test requests does not allow for these data elements, as their customer please request they update their interface; in order for a reference lab to comply, they must receive this information.
- All extra OBX segments should conform to the OBX segment structure and formatting just like any CWE data type OBX segment.
- See the updated IDPH ELR Implementation guide at: https://www.idph.iowa.gov/Portals/1/userfiles/113/Documents/iowa_ELRConstrainedProfileforProduction_Final%20v1_04_03_8.pdf

For smartLab users, please note: when mapping is required that standard codes should populate the first triplet and the local code should populate the second triplet of CWE formatted fields as in:

|standard code^standard description^code set name (e.g. LN, SCT) ^local code^local description^L|

The following table provides guidance on how to pass this information in the HL7 message.

#	Required Data Element	Question (test) Code	Answer (results) Codes	Location in HL7 Message	smartLab Mapping Required?
1	Test ordered Note: IDPH relies on Performed Test in OBX3, which requires smartLab mapping		https://www.cdc.gov/csels/dls/sars-cov-2-livd-codes.html	OBR 4	No
2	Device Identifier	NA	formula to construct the string based identifier: <Model name or Device ID>_<Manufacturer name>_<Abbreviation for the type> Ex: ID Now_Abbott_DII The value exemplified above should populate OBX 17.1 OBX-17.3 = "99ELR"	OBX 17.1 (string value) OBX 17.3 (string value)	No
3	Test result	Varies	Varies	OBX 5	Yes
4	Test Result date (YYYYMMDD)	NA	NA	OBR 22 OBX 19.1	No
5	Accession #/Specimen ID	NA	NA	OBR 3 SPM 2.2.1	No
6	Patient Age (DOB substituted for Patient age) ^α	NA	NA	PID 7	No
7	Patient race	NA	Amer. Indian/Alask. 1002-5 Asian 2028-9 Black/Afr Amer. 2054-5 Native Hawaiian 2076-8 White 2106-3	PID 10	Yes
8	Patient ethnicity	NA	Hispanic/Latino H Not Hispanic/Latino N	PID 22	Yes
9	Patient sex (at birth)	NA	Ambiguous A Female F Male M Not applicable N Other O Unknown U	PID 8	Yes
10	Patient residence zip code	NA	NA	PID 11.5	No
11	Patient residence county ^γ	NA	County name or FIPS 6-4 codes	PID 11.9	No

#	Required Data Element	Question (test) Code	Answer (results) Codes	Location in HL7 Message	smartLab Mapping Required?
12	Ordering provider name	NA	NA	ORC 12.2 & 12.3/OBR 16.2 & 16.3	No
	Ordering Provider NPI	NA	NOTE: when populating ORC 12.1 / OBR-16.1 also populate ORC-12.9/OBR-16.9 as: "NPI&2.16.840.1.113883.4.6&ISO" and ORC-12.13/OBR-12.13 as "NPI"	NPI would be in ORC 12.1 & OBR 16.1	
13	Ordering provider zip	NA	NA	ORC 24.5	No
14	Performing facility name and CLIA number	NA NA	NA NA	OBX 23.1 OBX 23.10	No
15	Performing facility zip code			OBX 24.5	No
16	Specimen Source		Varies	SPM 4	Yes
17	Date test ordered (YYYYMMDD)	NA	NA	ORC 15	No
18	Date specimen collected (YYYYMMDD)	NA	NA	OBR 7.1 SPM 17.1	No
Additional Patient Demographics Reported Only to State & Local PH Departments & Local PH Departments (not shared with CDC)					
1	Patient name: Last name	NA	NA	PID 5.1	No
	First name	NA	NA	PID 5.2	No
	Middle Initial	NA	NA	PID 5.3	No
2	Patient street address	NA	NA	PID 11.1	No
3	Patient phone number with area code	NA	NA	PID 13	No
4	Patient date of birth (YYYYMMDD)	NA	NA	PID 7	No
5	Ordering provider address	NA	NA	ORC 24	No
6	Ordering provider phone number	NA	NA	ORC 14 / OBR 17	No

#	Required Data Element	Question (test) Code	Answer (results) Codes	Location in HL7 Message	smartLab Mapping Required?
Ask On Order Entry (AOE) Data Elements					
1	First test	95417-2	Yes: Y No: N Unknown: UNK This is designated as an optional data element and IDPH has opted not to collect this value.	Extra OBX; must be linked to OBX of test with matching SUB ID in OBX 4	Yes See Additional Epidemiologic Information in Organism – Condition list on Mapping tab
2	Employed in healthcare	95418-0	Yes: Y No: N Unknown: UNK	Extra OBX; must be linked to OBX of test with matching SUB ID in OBX 4	Yes See Additional Epidemiologic Information in Organism – Condition list on Mapping tab
3.1	Symptomatic as defined by CDC ?	95419-8	Yes: Y No: N Unknown: UNK	Extra OBX; must be linked to OBX of test with matching SUB ID in OBX 4	Yes See Additional Epidemiologic Information in Organism – Condition list on Mapping tab
3.2	Date of Symptom Onset (if symptomatic)	65222-2	NA – numeric values such as dates are a code in and of themselves and do not require a result code. Format: YYYYMMDD Ex: 20200717	Extra OBX; must be linked to OBX of test with matching SUB ID in OBX 4	Yes See Additional Epidemiologic Information in Organism – Condition list on Mapping tab
4	Hospitalized at time of COVID test?	77974-4	Yes: Y No: N Unknown: UNK	Extra OBX; must be linked to OBX of test with matching SUB ID in OBX 4	Yes See Additional Epidemiologic Information in Organism – Condition list on Mapping tab
5	ICU?	95420-6	Yes: Y No: N Unknown: UNK	Extra OBX; must be linked to OBX of test with matching SUB ID in OBX 4	Yes See Additional Epidemiologic Information in Organism – Condition list on Mapping tab

#	Required Data Element	Question (test) Code	Answer (results) Codes	Location in HL7 Message	smartLab Mapping Required?
6	Resident in a congregate care setting ^β	95421-4	Yes: Y No: N Unknown: UNK	Extra OBX; must be linked to OBX of test with matching SUB ID in OBX 4	Yes See Additional Epidemiologic Information in Organism – Condition list on Mapping tab
7	Pregnant?	82810-3	Pregnant: 77386006 Not Pregnant: 60001007 Unknown: UNK^Unknown^NULLFL	Extra OBX; must be linked to OBX of test with matching SUB ID in OBX 4	Yes See Additional Epidemiologic Information in Organism – Condition list on Mapping tab

^α IDPH will calculate Patient age for reporting to CDC.

^β Resident in a congregate care setting (including nursing homes, residential care for people with intellectual and developmental disabilities, psychiatric treatment facilities, group homes, board and care homes, homeless shelter, foster care or other setting): (Y/N/U).

^γ The patient address is of critical importance for public health purposes (assigning to appropriate local jurisdiction, calculating positivity rates, etc.) and IDPH validates the patient, ordering provider, and ordering facility addresses. That validation returns the county value for valid street and zip code combinations.